

APPENDIX H

MISSOULA FIELD OFFICE FIRE MANAGEMENT PLAN

Background Historically, fire was the dominant disturbance agent within the coniferous tree cover types associated with the Garnet Mountain Range of Western Montana. The fire regimes within these forested types are complicated and diverse. Fire can benefit several conifer species by aiding in reproduction, maintaining stand density within a site's specific carrying capacity (which also functions to reduce inter-tree competition), by reducing insect and disease epidemics and by cycling nutrients on the site. A variety of shrub, grass and forb species, important components of wildlife habitat, also depend on fire to varying degrees. Conversely, fire can adversely effect the forest through high intensity fires which result in high mortality of conifers in forest communities and which can cause widespread severe erosion, mass wasting, and other detrimental environmental effects.

Approximately 112,000 acres (77 percent) of the lands managed by the resource area are classified within the coniferous tree cover types. Approximately 9500 acres (7 percent) of land within the resource area is classified as grassland or shrub/grassland. The remaining approximately 23,500 acres (16 percent) of the lands are scree, rock, etc. The vegetation descriptions for the overall area and for each Fire Management Zone (FMZ) will mainly address the conifer cover types. Rangelands can be characterized as montane grasslands dominated by bunch grass (bluebunch wheatgrass, Idaho fescue and rough fescue) or bunch grass/sagebrush cover types.

The Field Office has been divided into four FMZs based on geographic divisions, suitability for fire use, and fuel types. The area also contains three ACECs (Bear Creek Flats, Rattler Gulch Limestone Cliffs, and Squaw Rock) and three WSAs (Wales Creek, Hoodoo Mountain, and Quigg West). (See Map 9.)

Environmental Impacts Environmental assessment (EA) of site specific proposals such as a prescribed fire or mechanical treatment to reduce fuel loading on a specific location will be necessary before those site specific actions occur.

Planning Guidance Guidance comes from the Garnet RMP (May, 1986, page 39) and associated amendments (Feb. 2, 1994-EA MT074-01-07 and July 10, 1997-EA MT074-07-06) which establishes the primary fire protection objective as preventing, detecting, suppressing, and monitoring all fires on BLM lands. The Federal Wildland Fire Management Policy (May 1996, 2001)

provides additional guidance. Prescribed fire will be used in support of resource management objectives (See Garnet RMP, May 1986, page 39). Prescribed fire will conform with the provisions of state regulations and implementation plans as specified in 9210-Fire Planning section of the BLM manual and associated handbooks.

Wildland Fire Suppression and Rehabilitation Guidance Applying to Individual Management Areas

Due to the complexity of fire regimes present within the Missoula Field Office, fire management guidelines have been tied to Management Areas (MA) identified within the Garnet RMP. The Field Office currently manages over 140,000 surface acres, which have been broken down into 14 management areas. The guidance listed as common applies to all public lands in Missoula, Powell and Granite counties. Guidance specific to certain areas is located within the corresponding FMZ or identified as guidance related to certain management areas.

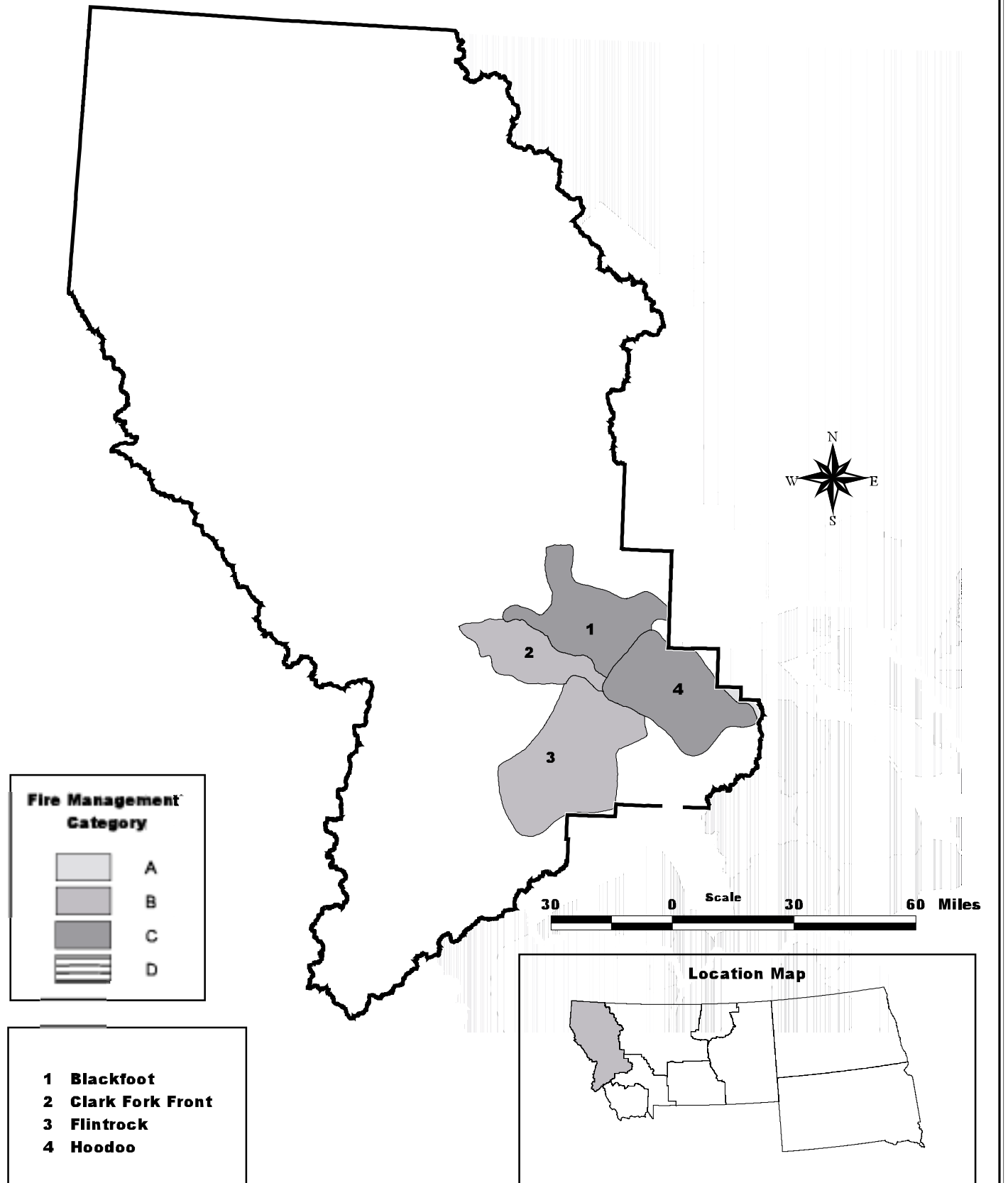
MA-1: Riparian Protection Zone (1,554 acres) and MA-2 :Riparian Multiple Use Zone (3,475 acres)

- Avoid fireline construction within these areas.
- Avoid dropping retardant over open water (no tree canopy).
- Do not dam culvert inlets for water supplies - outlets may often have pools, or at least can be dammed with far less potential for impact. Do not excavate streams for watering pools. Use porta-tanks, pumps, and hose to bring water to an engine access spot rather than constructing access to streamside.

MA-3 :General Forest Management (25,633 acres)

- Wildfires would be confined, contained, or controlled with salvage and rehabilitation strategy based on departure of resultant stand condition from range of natural variability assessed at multiple spatial and temporal scales.
- Using earth moving equipment in or adjacent to wallows, licks and wildlife security areas could adversely affect these specialized habitats. All the restrictions applied to earth moving heavy equipment use during timber harvest or other stand treatments should be applied to protect these specialized habitats during fire. There is no requirement to protect these features from burning during a wildfire event. Rehabilitation work in or near these features following suppression efforts should be guided by the management guidelines for ground and vegetation disturbance or product removal contained in the Management Area Guidelines (MA-3 guidelines referenced on pages 43-44 of

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the Garnet RMP). The resource advisor will have discretion to modify those guidelines in the interest of crew safety or the urgent need to prevent a fire from escaping.

MA-4: Elk Summer and Fall Habitat Component (8,695 acres)

- During the suppression effort, operational constraints for earth moving heavy equipment similar to harvest or stand treatment actions would be applicable for equipment operating in or adjacent to wallows, licks and security areas. There is no requirement to protect the features from burning during the wildfire event. Rehabilitation work in or near the features following suppression efforts should be guided by the management guidelines for ground and vegetation disturbance or product removal contained in the Management Area Guidelines (MA-4 guidelines referenced on pages 44-46 of the Garnet RMP). The resource advisor will have discretion to modify those guidelines in the interest of suppression safety or escape fire potential.

MA-5: Big Game Summer and Fall Range (49,965 acres)

- During the suppression effort, operational constraints for earth moving heavy equipment similar to harvest or stand treatment actions would be applicable for equipment operating in or adjacent to wallows, licks and security areas. There is no requirement to protect the features from burning during the wildfire event. Rehabilitation work in or near the features following suppression efforts should be guided by the management guidelines for ground and vegetation disturbance or product removal contained in the Management Area Guidelines (MA-5 guidelines referenced on pages 46-47 of the Garnet RMP). The resource advisor will have discretion to modify those guidelines in the interest of suppression safety or escape fire potential.

MA-6: Big Game Winter Range (24,856 acres)

- Fire suppression objectives and tactics should retain as much canopy of large and very large trees as possible. The use of earth moving heavy equipment through open parks and on steep terrain should be minimized. Fire rehabilitation should concentrate on soil stabilization and native plant restoration. Attention to these details will enhance the resulting big game habitat condition for thermal cover and forage following a wildfire event.

MA-7: Noncommercial Forest and TPCC Withdrawn Commercial Forest (2,586 acres)

- Wildfires would be confined, contained, or controlled with salvage and rehabilitation strategy based on departure of resultant stand condition from range of natural variability assessed at multiple spacial and temporal scales.

MA-8: Areas Recommended for Wilderness Designation (520 acres)

Three Wilderness Study Areas (WSA) exist within the

Missoula Field Office; only one of which (Quigg West) has been recommended for designation as Wilderness. Until Fire Management Plans are developed for each WSA the following suppression guidelines provide interim guidance for all three areas.

- No earth moving heavy equipment will be used in these areas unless specifically authorized by the Field Manager. Mobile ground engines are not considered heavy equipment and may be taken off-road if living trees greater than 4 inches d.b.h. are not cut.

- MIST will be used to suppress fires in these areas (Appendix H1 for MIST guidelines).

MA-9: Special Management Areas (9,471 acres)

- No earth moving heavy equipment will be used in these areas unless specifically authorized by the Field Manager. Mobile ground engines are not considered heavy equipment and may be taken off-road if living trees greater than 4 inches d.b.h. are not cut.

- MIST will be used to suppress fires in these areas (see Appendix H1 for MIST).

MA-10: Developed and Undeveloped Recreation Sites (802 acres)

- No earth moving heavy equipment will be used in these areas unless specifically authorized by the Field Manager. Mobile ground engines are not considered heavy equipment and may be taken off-road if living trees greater than 4 inches d.b.h. are not cut.

- MIST will be used to suppress fires in these areas (see Appendix H1 for MIST).

- At developed recreation areas (campgrounds, day use sites, etc), no tree felling (over 4 inches d.b.h.) would be done after the first initial attack operational period without approval from a local BLM Resource Advisor.

MA-11: Historical and Cultural Sites (160 acres)

- Wildfire suppression methods are dependent on the type of site that is being threatened and will be selected to minimize or eliminate the impact on site values. The archaeologist will provide advice on fire tactics whenever a known site is threatened by fire. Fire will not destroy some MA-11s and in these cases fire will be allowed to pass over the sites and heavy equipment will not be used to protect them. Other areas are designated as "restrictive use areas" and the Missoula Field Office Archaeologist needs to be consulted prior to any heavy equipment use in those areas. Each MA-11 and their restrictions will be discussed in each of the four Fire Management Zone sections of this document.

MA-12: Visual Corridor (11,747 acres)

- Wildfire suppression methods that maintain visual quality will be selected whenever possible. (Visual Resource Management Guidelines are referenced on pages 21-22 and Appendix E, pages 91-93 of the Garnet RMP).

MA-13: Nonforest Habitat (352 acres)

-Wildfires would be confined, contained, or controlled with suppression methods that maintain visual quality whenever possible.

- Fire suppression objectives and tactics should retain as much canopy of large and very large trees as possible and minimize the use of mechanized equipment through open parks and on steep terrain. Suppression rehabilitation should concentrate on soil stabilization and native plant restoration. Attention to these details will enhance the resulting big game habitat condition for thermal cover and forage following a wildfire event.

MA-14: Mineral Production Area (820 acres)

- Firefighters and logistics personnel should take special precaution in areas of current and historic mining, as dangerous mine shafts/adits, explosives, and hazardous waste may be present.

GUIDANCE COMMON TO ALL PUBLIC LANDS WITHIN THE RESOURCE AREA

Fire Ecology The following table relates Fire Group (a group of habitat types similarly affected by fire) to fire frequency and fire severity within specific coniferous cover types occurring within Field Office boundaries. Percentage of the Field Office within the various cover types is also listed. The table illustrates the complex role fire historically played across landscapes in west central Montana. It also provides insight into how fire tends to function and its projected effects under present conditions. The historical role of fire should be kept in mind when prescribing and managing fire within the resource area.

Natural Fire Frequency and Severity for Coniferous Tree Cover Types

<i>Fire Group</i>	<i>% of Area</i>	<i>Frequency</i>	<i>Severity**</i>	<i>Cover Type Description</i>
4	10%	5-25 yrs	NL	Warm, dry Douglas fir habitat types. Commonly characterized as fire-maintained open ponderosa pine stands that develop Douglas fir regeneration beneath pine in absence of disturbance. Potential big-game winter range value is high (MA-6).
5	5%	35-45 yrs	NL-M	Cool, dry Douglas fir habitat types. Douglas fir often dominates all successional states. In absence of fire, dense Douglas fir understories may develop.
6	40%	15-45 yrs	M-L	Moist Douglas fir habitat types. Commonly characterized as fire-maintained relatively open western larch and ponderosa pine stands which support substantial amounts of Douglas fir even when subjected to periodic fire. Potential timber productivity and big-game winter range values are moderate to high (e.g., MAs-3&6).
7	30%	50-150 yrs	L-M	Cool habitat types usually dominated by lodgepole pine. Includes stands in which fire maintains lodgepole pine as dominant seral as well as a persistent dominant species. Potential big-game summer-fall range values are high (MAs 4&5)
9	15%	50-300 yrs	M-L	Moist, lower subalpine habitat types characterized by infrequent, severe fire regimes which created stands of emergent western larch over relatively dense mixed conifer understories. Potential timber productivity and big-game summer-fall range values are high (MAs 3,4&5)

* Fisher and Bradley, 1987, *Fire Ecology of Western Montana Forest Habitat Types*.

** NL-Non-lethal, L-Lethal, & M-Mixed Severity Fire Regimes.

Wildland Fire Suppression and Rehabilitation guidance common to all areas within Missoula Field Office boundaries In addition to the state guidelines found in Appendix A, the following resources or values will be given further consideration as specified.

Cultural: Cultural Sites Not Designated MA 11: Cultural resources in the Garnet Resource Area vary from prehistoric occupation sites to prehistoric lithic scatters to historic mining remnants to historic buildings and more. Most of the cultural resources in the Garnet Resource Area have not been designated as MA-11s, although some have determined to be eligible for the National Register of Historic Places (significant sites). Sites will continue to be evaluated for National Register of Historic Places eligibility and MA-11 designation.

When a wildland fire threatens BLM administered lands, the MiFO Archaeologist should be consulted as to the potential for cultural resources in the fire area. If significant cultural sites are in the wildland fire area, appropriate measures, as delineated below or as discussed with the MiFO Archaeologist, should be taken. See Appendix A also.

Appropriate management response to wildland fires that threaten significant cultural or paleontological resources depend on the type of resource being threatened and the location of the wildland fire. The MiFO Archaeologist should be consulted on the location of significant sites, on where a handline should be constructed in relation to a site and on appropriate mop-up activities. If a significant site is being threatened within the next 24 hour burning period, then minimum impact suppression tactics (MIST) should be used. The use of earth moving/tillage equipment would be prohibited for wildland fire suppression in all significant prehistoric, historic and paleontological site areas. If a significant historic site is being threatened because the site is projected to be in the fire's path, earth moving equipment can be used outside of the site area as long as the MiFO Archaeologist is consulted and concurs with the decision. In addition, building protection measures such as a water sprinkling system, foaming system or heat shield wrapping system, should be used whenever feasible to protect significant historic buildings.

Modified Suppression: Modified suppression may be used to reduce short or long-term adverse effects of fire suppression on public lands. Minimum Impact Suppression Tactics (MIST) are called for in specific MAs or for specific sites. The concept of MIST is to use the minimum amount of force necessary to effectively achieve the fire management protection objectives consistent with land and resource management objectives. It is a mind set on how to suppress a wildfire yet minimize the long-term

effects of the suppression action on the land. MIST may also require greater rehabilitation efforts than previously practiced. Specific fireline guidance on MIST, including considerations for each fire situation, logistics, aviation management, hazardous materials, fire rehabilitation, and demobilization practices can be found in the USDA Forest Service Northern Region Minimum Impact Suppression Tactics Guidelines- Fireline Handbook. If MISTs are not sufficient to reduce adverse effects, site specific fire use plans will be prepared to spell out how fire suppression will be modified under specific burning conditions and in specific locations.

OHV: OHV use off of established routes would be limited to those activities critical for suppression activities (as determined by the BLM Resource Advisor). Mobile ground engines are allowed off-road if living trees greater than 4 inches diameter at breast height (d.b.h.) are not cut. Decisions regarding the use of OHVs will utilize the Garnet RMP and associated amendments (Feb. 2, 1994-EA MT074-01-07 and July 10, 1997-EA MT074-07-06) as well as the Off-Highway Vehicle (OHV) EIS and Plan amendment for Montana, North Dakota and portions of South Dakota (incorporates the BLM's National OHV Strategy).

Salvaging Forest Products and Reforestation: Each site burned by wildfire will be evaluated to determine if salvage and reforestation are needed. The environmental effects of salvaging forest products and reforestation will be assessed under NEPA. Endangered Species Act consultation will be completed. If desired future conditions for upland vegetation have been established for a site, those desired future conditions will provide the purpose and need for BLM's actions (refer to Prescribed Fire and Other Fuels Management for explanation of desired future conditions and how it is established). An Environmental Assessment will be prepared for each salvage and reforestation proposal.

Seasonal Fire Restrictions and Closures: Emergency fire restrictions and closures for Southwest Montana are coordinated with other land management and fire protection agencies through the Southwest Montana Interagency Coordinating Group. An existing agreement spells out how public use restrictions and closures will be uniformly applied to all lands with similar fire danger ratings. The coordinating group meets as needed to agree to fire danger preparedness levels and each level calls for specific restrictions or closures to be imposed. Once a preparedness level is agreed to, the Missoula Field Manager will initiate action to place the appropriate restrictions or closures on public land.

Soil Protection: The effects of fire on soil are variable in relation to numerous factors. Burned Area Evaluation

Reports (BAER) will be completed for all public lands which have been severely burned and may be completed for moderately burned lands. The BAER will prescribe measures needed to stabilize soils and prevent erosion or mass wasting. Refer to Appendix H3 for specific guidelines relating to soil protection and fire suppression activities.

Prescribed Fire and other Fuels management guidance common to all areas within Missoula Field Office boundaries In addition to the state guidelines found in Appendix A, the following resources or values will be given further consideration as specified.

Over the past 40 years in this resource area, the BLM has used prescribed fire to reduce fuels by burning road and logging slash, prepare forest sites for natural or artificial reforestation and to improve wildlife habitat. These actions were most often driven by a single discipline. More recently a multi-disciplinary process has been used to establish desired future conditions for the public lands, including desired conditions for upland vegetation and riparian communities. The process currently being used to set desired future conditions is Ecosystem Analysis at the Watershed Scale (EAWS) also known as the Six Step Federal Process. The geographic area covered by the EAWS will vary from about 12,000 acres to about 35,000 acres and EAWS for the public lands in Powell, Missoula and Granite counties is scheduled to be completed by 2008.

As the Field Office completes EAWS, treatments are implemented through action plans to achieve desired future conditions. Desired future conditions for upland forested habitats often call for restoring stand conditions which were in sync with past fire regimes. Historic fire regimes in dry habitats at low elevations typically consisted of high frequency, low intensity, non-lethal fires while in cold, high elevation habitats, low frequency, high intensity lethal fires occurred. Between these two extremes is a variety of forest communities which co-existed with periodic fire disturbance and the varying effects of fire. BLM cannot permit historic fire regimes to return to its lands because of numerous adverse effects to the public's resources and the risk such a policy would present to private and other lands adjacent to BLM lands.

To achieve desired future conditions for public lands, a series of vegetative treatments will be prescribed. Thinning followed by prescribed burning to reduce fuel loads, cutting and removing fuels through commercial thinnings, removal of large trees valuable as sawlogs followed by prescribed burning to reduce fuels and prepared the site for reforestation and augmenting fuels through slashing to burn open savanna and parklands are examples of the types of treatments that have been applied and will continue to be

called for to arrive at desired future conditions. "Intermediate burns" not connected to prior thinning or harvest actions may be used to achieve wildlife habitat rejuvenation, fuels management, and lower disease risk.

Prescribed Fire and Other Fuel Treatment Guidance Applying to Individual Management Areas: The guidance listed under the following MAs is general guidance. Prescribed burn and/or fuel treatment plans will be developed on a site specific basis. Refer to Prescribed Fire and Other Fuels Management, above, for a description of how these plans are developed. If a MA is not listed below, all prescribed burn and fuel treatment guidance will be issued within the site specific plans.

MA-3: General Forest Management

- Following silvicultural treatments, prescribed fire would be used to reduce fuel loading and prepare site for regeneration.

- Periodic prescribed fire would favor broadly adapted seral species, enhance nutrient cycling and control stocking to maintain healthy stands and optimize timber growing potential. Periodic burning would also enhance wildlife habitat components through shrub restoration, snag recruitment, and augmentation of coarse down woody debris.

MA-7: Noncommercial Forest and TPCC Withdrawn Commercial Forest

- Following silvicultural treatments, prescribed fire would be used to reduce fuel loading and prepare site for regeneration.

- Periodic prescribed fire would favor broadly adapted seral species, enhance nutrient cycling and control stocking to maintain healthy stands and optimize timber growing potential. Periodic burning would also enhance wildlife habitat components through shrub restoration, snag recruitment, and augmentation of coarse down woody debris.

MA-8: Areas Recommended for Wilderness Designation

- Because the use of some fire suppression tactics and fuel management treatments is limited inside the WSAs, site-specific fire management plans will be prepared for the individual WSAs which consider the use of prescribed fire to reduce fuel loading and thus reduce the risk of high-intensity, wide-spread wildfire.

MA-11: Historical and Cultural Sites

- Fire will not be used as a management tool in these areas.

-Commercial forest land is set aside.

-Noncommercial forest land is unavailable for wood product harvest.

MA-13: Nonforest Habitat

-Periodic prescribed fire would favor broadly adapted seral species, enhance nutrient cycling and control tree encroachment to maintain healthy grass/shrub stands. Periodic burning would also enhance wildlife habitat components through shrub restoration, snag recruitment, and augmentation of coarse down woody debris.

BLACKFOOT (C1)

FMZ Description: Fire is desirable but its use is complicated or limited due to air quality, urban interface and other issues.

Area Description: The area exhibits a broad range of topography from sagebrush/grass flats to rolling uplands to steep, forested slopes. The area includes approximately 379,400 acres (20 percent BLM, 13 percent state, 63 percent private, 1 percent U.S. Fish and Wildlife Service, 3 percent FS). Highway 200 is the primary highway used to access the majority of this area. The majority of the BLM land within this FMZ is not within close proximity to Highway 200. The FMZ is characterized by numerous roads of various classes from past and present mining and logging activities. The majority of the land managed by the BLM within this area is contiguous ownership. The contiguous ownership is broken into three main "blocks" described as follows: Marcum Mountain area near Lincoln, Lower Blackfoot River Corridor and Elk Creek/Chamberlain/Garnet Ghost Town area. The area contains several ghost towns including Garnet Ghost Town, several Historic Mining Districts, a wide range of cultural resources, habitat for several threatened, endangered, or sensitive wildlife species such as bull trout, bald eagles, and lynx, Bear Creek Flats Area of Critical Environmental Concern (ACEC), the Wales Creek WSA.

This FMZ is dominated by coniferous tree cover types. The dominant conifer species present are ponderosa pine, western larch, Douglas fir, lodgepole pine, subalpine fir, Englemann spruce.

Wildland Fire History: Between 1978 and 1999, federal agencies have responded to 152 fires which burned an estimated 3,000 acres. Average fire size was 19.9 acres.

Interface: The Lower Blackfoot River Corridor is in close proximity to the town of Potomac and the numerous associated private homes occurring on adjacent land. Elk Creek drainage also contains private homes with small acreage surrounded by BLM and State forested land.

Interface with a group of private homeowners also exists at the 5 mile marker on the Garnet Range Road. The majority of the area managed by the BLM is contiguous lands so the remainder of the interface consists mostly of isolated homes and ranches occurring on adjoining land. Some private land and mining claims are intermixed within these large tracts of BLM ownership.

Area Concerns and Constraints: Garnet Ghost Town and some significant cultural resources may require fuel hazard reduction plans to be created and implementation of fuel hazard reduction adjacent to these structures. Fuel hazard reduction will aid in the protection of these structures during wildfire suppression efforts. The Blackfoot River Corridor has high recreational use, both on and off the river, during the fire season.

The Wales Creek WSA will limit the use of mechanical equipment and requires "light-on-the-land" techniques or MIST.

Bear Creek Flats ACEC is subject to constraints listed under Guidance Applying to Individual Management Areas for wildland fire suppression and rehabilitation, MA 9.

Elevation Mountain Repeater (T13N R13W Section 28), which assists in radio communication in the Blackfoot FMZ, needs protection.

Resource Objectives: Resource objectives for areas within this FMZ will be identified through the EAWS process (see Prescribed Fire and Other Fuels Treatment guidance common, above, for a discussion of EAWS). Through the EAWS process, landscape or watershed scale desired future conditions for upland vegetation are identified. EAWS have been completed for the Elk Creek Watershed (10,078 acres) and the lower Blackfoot River Corridor (11,770 acres). EAWS is in progress for Murray/Douglas/Yourname Creeks (22,000 acres) and is scheduled for completion in 2001; future EAWS will cover all the public lands by 2008. If desired future conditions for vegetation have not been written, the general guidelines or the guidelines given for each MA will apply to all fire suppression activities.

Fire Objective: The general fire objective is to reintroduce prescribed fire into the ecosystem to return to mid to late seral timber types in the Douglas fir/western larch communities. Fire, under specific conditions, is desired in the Wales Creek WSA to reduce decadent stands of lodgepole. A site specific fire management plan will be developed for the Wales Creek WSA to guide suppression of wildfires, WFMRO, and prescribed fire within the WSA. Conduct fuel hazard reduction projects around

sensitive sites such as Garnet Ghost Town and Coloma Ghost Town to reduce risk of catastrophic wildfire in these special areas.

Wildland Fire Suppression and Rehabilitation: The topics identified and discussed under the Management Areas below are specific to this FMZ. If a MA/topic is not listed below, refer to the general guidance listed under Wildland Fire Suppression and Rehabilitation Guidance common or Wildland Fire Suppression and Rehabilitation Guidance Applying to Individual Management Areas.

MA-3: General Forest Management

-Use MIST to protect the lodgepole pine progeny test site (located in T12N R13W Section 7 of the Elk Creek drainage) from wildfire.

MA-11: Historical and Cultural Sites

- Designated MA-11s in the Blackfoot Fire Management Zone include Garnet Ghost Town, Coloma Ghost Town, Reynolds City, Reynolds City Cemetery, Sand Park Cemetery, Warren Park, Copper Cliff, Skimmerhorn and Warren's Cabin.

- Full suppression tactics should be used around Garnet Ghost Town, Coloma Ghost Town, Copper Cliff, Warren's Cabin and Warren Park including building protection tactics. Existing roads will be used whenever possible. However, the use of earth moving heavy equipment within the site boundaries is prohibited.

- MIST will be used around the Reynolds City, Reynolds City Cemetery, Sand Park Cemetery, and the two sites within the Skimmerhorn area. The use of earth moving heavy equipment in these areas is prohibited.

- Most of the cultural resources in the Blackfoot Management Area have not been designated as MA-11s. Refer to section Wildland Fire Suppression and Rehabilitation Guidance common: Cultural Sites Not Designated MA11 for guidance.

CLARK FORK FRONT (B2)

FMZ Description: Fire is generally desirable and prescribed fire is needed to control pine, juniper, and Douglas fir encroachment onto the sagebrush-grass areas.

Area Description: The area is predominately steep forested slopes with scattered open grasslands. The area includes approximately 248,500 acres (9 percent BLM, 8 percent state, 83 percent private, 1 percent FS). US Interstate 90 is the primary highway used to access the majority of this area. The FMZ is characterized by

numerous roads of various classes from past and present mining and logging activities. The majority of the land managed by the BLM within this area is non-contiguous ownership. The area contains several Historic Mining Districts, a wide range of cultural resources, habitat for some threatened, endangered, or sensitive wildlife species such as bald eagles, and the Rattler Gulch ACEC.

This FMZ is dominated by coniferous tree cover types (approximately 80). The dominant conifer species present are ponderosa pine, western larch, and Douglas fir. The remainder of the area is generally open grassland (20 percent).

Wildland Fire History: Federal agencies have responded to 70 fires which burned an estimated 246 acres. Average fire size was 3.52 acres.

Interface: Isolated homes and ranches adjoin BLM land. The Bearmouth Chalet and campground is also in close proximity to BLM land. Private homes are scattered throughout the Ten Mile, Cramer Creek, and Bear Creek drainages.

Area Concerns and Constraints: Current mining claims and Historic Mining Districts are present within this FMZ. Rattler Gulch ACEC is within MA 9, Special Management Areas, and is subject to the constraints listed above under Guidance Applying to Individual Management Areas for wildland fire suppression and rehabilitation.

Resource Objectives: Resource objectives for areas within this FMZ will be identified through the EAWS process (see Prescribed Fire and Other Fuels Treatment guidance common, above, for a discussion of EAWS). Through the EAWS process, landscape or watershed scale desired future conditions for upland vegetation are identified. EAWS have currently not been completed for areas within this FMZ. Future EAWS will cover all the public lands by 2008. If desired future conditions for vegetation have not been written, the general guidelines or the guidelines given for each MA will apply to all fire suppression activities.

Fire Objective: Prescribed fire may be used to reduce Douglas fir and encourage the establishment of more fire tolerant ponderosa pine communities. Mechanical methods may be used to manage fuels around sensitive sites such as Rattler Gulch ACEC to reduce risk of catastrophic wildfire in these special areas.

Wildland Fire Suppression and Rehabilitation: Confine or contain unplanned ignitions to smallest feasible size unless a site specific fire management plan denotes other actions (i.e. WFMRO) are allowable.

The topics identified and discussed under the Management Areas below are specific to this FMZ. If a MA/topic is not listed below, refer to the general guidance listed under Wildland Fire Suppression and Rehabilitation Guidance common or Wildland Fire Suppression and Rehabilitation Guidance Applying to Individual Management Areas.

MA-9: Special Management Areas

According to the Rattler Gulch ACEC Management Plan mechanized ground disturbing activities will not be used in connection with fire suppression.

MA-11: Historical and Cultural Sites

- There are at least 7 sites that have been designated as MA-11s in the Clark Fork Front FMZ. These sites consist of Beartown, Bearmouth, Ravenna sub-station, portions of Deep Creek, an area around Sleepy Tom and some areas in Tenmile.

- MIST will be used around Beartown, Bearmouth, Ravenna sub-station, and the area in Sleepy Tom. The use of earth moving heavy equipment in these areas is prohibited.

-Fire will not destroy the sites within Deep Creek or the sites in Tenmile therefore fire may be allowed to burn over these areas. The use of earth moving heavy equipment in these areas is prohibited.

- Most of the cultural resources in the Clark Fork Front FMZ have not been designated as MA-11s. Refer to Wildland Fire Suppression and Rehabilitation Guidance common: Cultural Sites Not Designated MA11 for guidance.

FLINTROCK (B3)

FMZ Description: Fire is generally desired and prescribed fire is needed to control pine, juniper, and Douglas fir encroachment onto the sagebrush-grass areas.

Area Description: The area exhibits a broad range of topography from sagebrush/grass flats to rolling uplands to steep, forested slopes. The area includes approximately 664,000 acres (4 percent BLM, 2 percent state, 63 percent private, 31 percent FS). Montana State Route 1 is the primary highway used to access the majority of this area. The FMZ is characterized by numerous roads of various classes from past and present mining and logging activities. The majority of the land managed by the BLM within this area is non-contiguous ownership. The area contains several Historic Mining Districts, a wide range of cultural resources, habitat for some threatened, endangered, or sensitive wildlife species such as bald eagles, Squaw Rock ACEC and Quigg West WSA.

The area consists predominately of lodgepole pine and Douglas fir cover types. South facing slopes contain large sagebrush/grass parks. Approximately 20 percent of the area contains decadent stands of lodgepole pine. some of the Douglas fir stands are overstocked. Scattered stands of aspen are also present.

Wildland Fire History: Federal agencies have responded to 61 fires which burned an estimated 13,100 acres. Average fire size was 215.3 acres.

Interface: Isolated homes and ranches adjoin BLM land. Private homes are located in the lower Scotchman and Willow Creek drainages. The community of Phillipsburg and the surrounding subdivisions are located within close proximity to a block of BLM ownership. These interface areas will impact suppression efforts.

Other Area Concerns and Constraints: The Forest Service borders many BLM lands within this FMZ and future fire planning will require close coordination with that agency.

The Quigg West WSA limits the use of mechanical equipment and requires "light-on-the-land" techniques or MIST. Earth moving heavy equipment use will not be permitted unless specifically authorized by the Field Manager. Because the WSA designation constrains the use of some fire suppression tactics and fuel management treatments, a site-specific fire management plan will be prepared for the WSA This plan will consider the use of both prescribed fire and Wildfire Managing for Resource Objectives (WFMRO) to reduce fuel loading and thus reduce the risk of high-intensity, wide-spread wildfire.

Squaw Rock ACEC is within Management Area 9, Special Management Areas, and is subject to the constraints listed under Wildland Fire Suppression and Rehabilitation Guidance Applying to Individual Management Areas for wildland fire suppression and rehabilitation.

Resource Objectives: Resource objectives for areas within this FMZ will be identified through the EAWS process (see Prescribed Fire and Other Fuels Treatment guidance common for a discussion of EAWS). Through the EAWS process, landscape or watershed scale desired future conditions for upland vegetation are identified. EAWS have currently not been completed for areas within this FMZ. Future EAWS will cover all the public lands by 2008. If desired future conditions for vegetation have not been written, the general guidelines or the guidelines given for each MA will apply to all fire suppression activities.

Fire Objective: Prescribed fire may be used to reduce Douglas fir encroachment into sagebrush parks, reduce overstocking of Douglas fir within the conifer stands by

removing a portion of the understory trees with fire and encourage aspen rejuvenation within old-aged stands. Fire, under specific conditions, may be desired within the Quigg West WSA. A site specific fire management plan will be developed for the Quigg West WSA to guide suppression of wildfire, WFMRO, and prescribed fire within the WSA. Quigg West WSA is adjacent to Forest Service land so any fire planning will require coordination with that agency. Manage fuels, as deemed necessary, with mechanical methods (i.e. chainsaws) around sensitive sites such as Squaw Rock ACEC to reduce risk of catastrophic wildfire in these special areas.

Wildland Fire Suppression and Rehabilitation: Confine or contain unplanned ignitions to smallest feasible size unless a site specific fire management plan (i.e. Quigg West WSA) denotes other actions (i.e. WFMRO) are allowable.

The topics discussed under the Management Areas below are specific to this FMZ. If a MA/topic is not listed below, refer to Wildland Fire Suppression and Rehabilitation Guidance common or Wildland Fire Suppression and Rehabilitation Guidance Applying to Individual Management Areas.

MA-11: Historical and Cultural Sites

- At least three sites have been designated as MA-11s in the FlintRock FMZ, including areas north of Philipsburg and an area near Rock Creek. The resource area Archaeologist will be consulted for further information.

- Fire will not destroy these sites and may be allowed to burn over them. The use of earth moving heavy equipment in these areas is prohibited.

- Most of the cultural resources in the Flintrock FMZ have not been designated as MA-11s. Refer to Wildland Fire Suppression and Rehabilitation Guidance common: Cultural Sites Not Designated MA11 for guidance.

HOODOO (C4)

FMZ Description: Fire is desirable but its use is complicated or limited due to concerns about air quality, urban interface and other issues.

Area Description: The area exhibits a broad range of topography from rolling sagebrush/grass parks to steep, forested slopes. The area includes approximately 432,900 acres (7 percent BLM, 7 percent state, 82 percent private, 4 percent FS). Montana State Route 141 is the primary highway used to access the majority of this area. The FMZ is characterized by numerous roads of various classes from

past and present mining and logging activities. The majority of the land managed by the BLM within this area is non-contiguous ownership. The area contains several Historic Mining Districts, a wide range of cultural resources, habitat for several threatened, endangered, or sensitive wildlife species such as bald eagles and lynx.

The area contains predominately lodgepole pine (70 percent) and Douglas fir (30 percent) forest types. Scattered stands of aspen are also present. Some sagebrush/grass areas occur at the lower elevations and high elevation southwest aspects.

Wildland Fire History: Federal agencies have responded to 50 fires which burned an estimated 520 acres. Average fire size was 10.4 acres.

Interface: The interface consists of isolated homes and ranches occurring on adjoining land. Private homeowners live in the Blackfoot City area. These interface areas will impact suppression efforts.

Area Concerns and Constraints: Current mining claims and Historic Mining Districts, such as the Blackfoot City area, are present within this FMZ.

The Hoodoo WSA will limit the use of mechanical equipment and require “light-on-the-land” techniques or MIST. Earth moving heavy equipment use will not be permitted unless specifically authorized by the Field Manager. Because the WSA designation constrains the use of some fire suppression tactics and fuel management treatments, a site-specific fire management plan will be prepared for the WSA. This plan will consider the use of both prescribed fire and Wildfire Managing for Resource Objectives (WFMRO) to reduce fuel loading and thus reduce the risk of high-intensity, wide-spread wildfire.

Resource Objectives: Resource objectives and Landscape or watershed scale desired future conditions for upland vegetation are identified. EAWS have currently not been completed for areas within this FMZ. Future EAWS will cover all the public lands by 2008. If desired future conditions for vegetation have not been written, the general guidelines or the guidelines given for each MA will apply to all fire suppression activities.

Fire Objective: Prescribed fire may be used to open up dense lodgepole pine stands, promote growth of ponderosa pine by reducing the current overstocking of Douglas fir on these sites, and to revitalize old-aged stands of aspen. Fire, under specific conditions, is desired in the Hoodoos WSA to reduce decadent stands of lodgepole. A site specific fire management plan will be developed for the Hoodoos WSA to guide suppression of wildfire, WFMRO, and prescribed fire within the WSA.

Wildland Fire Suppression and Rehabilitation: Confine or contain unplanned ignitions to smallest feasible size unless a site specific fire management plan (ie Hoodoos WSA) denotes other actions (i.e. WFMRO) are allowable.

The topics identified and discussed under the Management Areas below are specific to this FMZ. If a MA/topic is not listed below, refer to the general guidance listed under Wildland Fire Suppression and Rehabilitation Guidance common or Wildland Fire Suppression and Rehabilitation Guidance Applying to Individual Management Areas.

MA-11: Historical and Cultural Sites

- At least 3 sites that have been designated as MA-11s in the

Hoodoos FMZ. These sites consist of Blackfoot City, Blackfoot City Cemetery Annex and an area northeast of Avon, Montana.

- MIST will be used around the Blackfoot City Cemetery. Fire will not destroy Blackfoot City and the area northeast of the town of Avon. Therefore, fire may be allowed to burn over these areas. The use of earth moving heavy equipment within these areas is prohibited.

- Most of the cultural resources in the Hoodoo FMZ have not been designated as MA-11s. Refer to Cultural Sites Not Designated MA11 for guidance.